

ABSTRACT

A code division multiple access user equipment is used in receiving a plurality of data signals over a shared spectrum. Each received data signal experiences a similar channel response. A combined signal of the received data signals is received over the shared spectrum. The combined signal is sampled at a multiple of the chip rate. A channel response is estimated at the multiple of the chip rate. The multiple chip rate estimated channel response is combined as an effective chip rate channel response. A spread data vector is determined using the effective samples, the effective channel response and a fourier transform. Data of the data signals is estimated using the spread data vector.

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